

**SUNSHINE EDUCATION AND RESEARCH CENTER AT THE
UNIVERSITY OF SOUTH FLORIDA**

SUMMARY ANNUAL REPORT

July 1, 2009 – June 30, 2010

NIOSH Training Grant

No. T42 OH008438

Submitted by:

**THOMAS E. BERNARD
CENTER DIRECTOR**

**UNIVERSITY OF SOUTH FLORIDA
TAMPA, FL 33612-3805**

October 1, 2010

Center Wide: Thomas Bernard, Center Director

The University of South Florida Sunshine Education and Research Center (SERC) improves the health, safety and well being of workers and is in its 13th year. The program provides training in industrial hygiene, occupational health nursing, occupational health psychology, occupational safety and occupational medicine. Additionally, the continuing education and outreach programs provide training to OSH professionals in the region and state. The Pilot Research Training Project provides funding to other universities in Florida and Puerto Rico on diverse topics resulting in completion of dissertations, presentations at national, regional and state professional conferences, and two papers in review. The outreach activities are also focused on building relationships with OHS programs in the surrounding areas.

The NORA Interdisciplinary Research Seminars provides an opportunity for NIOSH supported trainees and OSH professionals to present research and provide outreach for the OSH community. Continuing education and outreach are central elements of the Sunshine ERC. A schedule of one to three day classes addressing basic OSH topics were provided by ERC faculty and local instructors with expertise in the particular topic has proven very successful. The second major effort is co-sponsoring meetings and OSH professional association conferences. The SERC provides faculty speakers with expertise in the topic of interest. These community collaborative initiatives have proven very successful and the SERC is able to provide outreach to a wide variety of OSH professionals on a national, regional and state level.

The Director of the IH program is also director of USF *SafetyFlorida*, which is an OSHA 21d consultation program, and the USF *OSHA Training Institute Education Center for Florida*. This relationship provides the SERC with people in close touch with current issues in OSH to help direct continuing education and outreach, provides mentors for student trainee field experiences, and suggests directions for student trainee projects and theses.

Intense and focused diversity recruitment efforts have resulted in an increase in women and African American student trainees and maintenance of Hispanic/ Latino enrollment. The total is approximately 20% which reflects the USF undergraduate population.

Pilot Projects: Yehia Hammad, Director

Dr. Hammad served as the Director of Research for the PRP and supervised the administration and management of the awarded projects. He also served as the Chair of the Scientific Review Committee. The pilot project announcement and application materials were made available in June and were posted on the internet through the College of Public Health Website. In addition, the announcement and application materials were e-mailed to Directors of ERCs and TPGs in the region, as well as researchers and faculty members in the area of occupational safety and health at other universities and colleges in Florida. The Scientific Review Committee is comprised of 5 additional individuals, two faculty members from USF and a faculty member from University of Utah, Florida International University and University of Puerto Rico. Five projects were funded. The topics of these projects were: (1) Pesticide Biomonitoring in Florida Agricultural Workers, (2) Rural vs. Urban Asthma in South Florida, (3) Lone Workers: A Unique Safety Challenge Within the Transportation Industry, (4) Alleviating Combat Related Stress with Adventure Training, and (5) A Unified Measure of Workplace Aggression, Its Moderators and Consequences. Pilot projects have resulted in two papers currently in review and three poster presentations at national conferences.

Industrial Hygiene Program: Yehia Hammad, Director

The Industrial Hygiene Program had 17 students enrolled (10 MSPH, 7 PhD), and graduated 6 (5 MSPH, 1 PhD). A total of 9 presentations / posters were exhibited – 2 at national events, and 7 at regional/local events.

The Industrial Hygiene Program continues to be accredited by ABET, and practices ongoing self-improvement through evaluation by faculty, students, graduates, employee surveys, and review by the Center's External Advisory Board. The program meets its principal goal of furnishing working professionals and future researchers with a high quality educational experience to the critical growing need for this specialty in the State of Florida, the Southeastern United States, and the nation, as indicated by employment need projections published by the Bureau of Labor Statistics. The Industrial Hygiene Program is the focal point for the Center's interdisciplinary activities, and minority recruitment efforts. As a result of our discussions with the

External Advisory Board we now include a joint session for the Occupational Safety Management and the Principles of Industrial Hygiene courses, featuring invited speakers on timely subjects.

Occupational Health Nursing Program: Candace Burns, Director

The goal of the Occupational Health Nursing Program (OHN) is to provide education, training and research experiences to master's level predoctoral student trainees. Trainees are prepared to serve not only in leadership and educator roles as OHNs but also to provide advanced direct patient / work services in the innovative role of the OHN Nurse practitioner (NP). Three trainees were admitted and one trainee graduated during this reporting period bring the total OHN enrollment to 17 as of the end of the reporting period. Three trainees are projected to graduate within the next reporting period and three trainees were admitted as of Fall 2010. In addition, unfunded doctoral students (one PhD and one DNP) focusing their research in occupational safety and health are projected to graduate December 2010. NIOSH master's level trainees had four manuscripts accepted for publication in peer-reviewed journals. Two OHN student trainees are focusing their Special Projects as interdisciplinary projects working with doctoral students in the OHP program in occupational violence. Dr. Helen Conlon, Deputy Director, was invited to Co-Chair the new AAOHN Practice Guidelines Committee.

Occupational Health Psychology Program: Paul Spector, Director

The Occupational Health Psychology (OHP) program completed its 4th year as a member of the Sunshine ERC during the 2009/10 academic year. The program has developed an academic orientation, with the majority of trainees having career goals as academics. To date 4 of the 5 graduates, including 2 who completed their degree prior to the program joining the ERC have positions as assistant professors, 3 in departments that have doctoral programs. The program has a steady throughput of trainees. During the period 3 students graduated and 4 entered the program. The graduates are: Nichole Jagusztyń who is a research analyst at Hillsborough Community College, Joe Mazzola who is an assistant professor at University of Tulsa, and Kristen Shockley who is an assistant professor at Baruch University. The four new trainees were all first year industrial/organizational psychology doctoral students. Collectively our trainees presented 17 papers at national conferences, and had 12 peer-reviewed journal articles. OHP trainees brought Peter Chen from the Colorado ERC to campus to give a talk and meet with them.

Occupational Medicine Residency Program: Hamisu Salihu, Director

OMR had a total of six trainees for the 2009-2010 budget year. One resident graduated after successfully defending his thesis project "Patient Reported Efficacy Of Botulinum Toxin Type A In The Treatment Of Chronic Migraine Headaches" in May 2010. Another resident completed the trainee program in July 2010 and successfully defended his thesis "Answer Distortion on the Epworth Sleepiness Scale during the Commercial Driver Medical Examination" in August. This project, along with a first year resident's project titled "Measurement of Tensile Force in a Retractable Intramuscular Syringe: A Comparison of Two Methods," were presented at the annual ACOEM meeting in Orlando, FL (May 2010). Additionally, a 2009 OMR graduate's thesis titled "2, 3, 6-Trinitrotoluene (TNT) Air Levels, Hemoglobin Change, and Anemia Cases in Respirator Protected TNT Munitions Workers" was accepted for publication in the *International Archives of Occupational and Environmental Health (In Press)*. From an administrative perspective, the new Program Director, Dr. Salihu, has developed an innovative mentoring program for junior OMR faculty and residents, published over 40 peer-reviewed scholarly publications, and secured several state and federal grants.

Occupational Safety Program: Thomas Bernard, Director

With the change-over in OS faculty, the decision was made to concentrate on the flagship MPH program. A review of the curriculum was undertaken by the current OS faculty, adjustments made to teaching assignments and the curriculum was reviewed by the Board of Advisors and an outside consultant. In the meantime, Dr. Sublet will establish an interventions research program from which we can increase the breadth of the student research experience and build an MSPH and eventually PhD program.

The OS program graduated one trainee in the past year but recruited six into the program for the coming year. The graduate did a laboratory based study with a poster (Chang, C.-H., *Logan, J. M., & Bernard, T. E.: Effects of Heat Stress on Risk Perceptions and Risk Taking. The poster was presented at the 2008

National Occupational Injury Research Symposium, Pittsburgh, PA.) A manuscript is in preparation after more control data were collected.

Continuing Education and Hazardous Substance Training: Hana Osman, Director

CONTINUING EDUCATION ANNUAL REPORT:

During this period, twenty-four continuing education programs were completed, and 2,275 individuals were trained. Members of private industry (n=377), public employees (n=237), employees of academic settings (n=179), and 1,482 others were represented in the trainee population. The category of "other" is particularly large because many participants chose not to self-identify as members of any of the listed categories. CE programs were offered in conjunction with professional groups such as the Florida Association of Occupational Health Nursing, the Florida Workers Compensation Institute, the American Society of Safety Engineers and the OSHA Training Institute; with other ERCs (Deep South, North Carolina, and Cincinnati); and independently at USF. Needs assessments conducted by the Sunshine ERC, and data collected by the University of Cincinnati from attendees of national conferences informed the development of the CE program. Program evaluation, needs assessments, and impact assessments were conducted by the Sunshine ERC staff with all course attendees, and through online surveys. The Sunshine ERC external advisory board, the OTI staff, as well as the USF Sunshine ERC faculty guided the progress of the continuing education program.

HAZARDOUS SUBSTANCES TRAINING ANNUAL REPORT:

During this period, 24 courses were taught and 462 individuals completed hazardous substances training. The majority of the attendees self-identified with "safety" as their professional discipline. Members of private industry, federal, state, and local government, academic settings, and others represented the trainee population. Forty-one percent (n=190) of the HST attendees were government employees. To assure accuracy in reporting, registrations for HST courses were completed electronically, thereby reducing staff/human error in data entry. Information related to program evaluation, needs assessments and anticipated impact assessments was collected on a 5-page survey at the conclusion of all courses. The responses were electronically scanned, and reports were generated. The instructors were given the results of these surveys to continually evaluate their instruction methods and content of courses to improve the quality of the training and to continue to meet the needs of participants. To encourage participants to complete the surveys, at the end of successfully completing their training the participants are handed their certificates of attendance in return for the surveys. Over this 12-month period, 94 public sector employees were awarded scholarships amounting to \$9,806.00.